

Universal Wastes

What are universal wastes?

Universal wastes are a subset of hazardous wastes that may be accumulated and transported in Minnesota under reduced requirements. These wastes are referred to as *universal wastes* because, at some point, almost every business and government agency generates them. Universal wastes in Minnesota are regulated by the Minnesota Pollution Control Agency (MPCA) and the metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington (Metro Counties).

Universal wastes nationwide include:

- [Batteries](#) page 3
- [Lamps](#) page 3
- [Mercury-containing equipment](#) page 3
- [Pesticides](#) page 4

In Minnesota, three additional types of waste may also be managed as universal waste:

- [Dental amalgam being recycled](#) page 5
- [Pretreated dental wastewater](#) page 5
- [Aerosols and compressed gas cylinders](#) page 5

If you do not manage these wastes as universal waste, manage them as fully regulated hazardous waste.

What wastes are not universal wastes?

Waste streams commonly confused with universal waste include non-hazardous batteries, electronic waste, architectural paint, and lighting ballasts and small capacitors containing polychlorinated biphenyls (PCBs). Each of these has its own management requirements:

- **Non-hazardous batteries:** Batteries that are not hazardous at the time of disposal are not universal waste. Non-hazardous batteries include alkaline, carbon zinc, chloride zinc (commonly labeled *heavy duty*), nickel metal hydride (NiMH), zinc air, lithium batteries that are nine volts or less, and higher voltage lithium batteries that have been discharged to less than one volt. Although non-hazardous, you are still encouraged to recycle them if collection is available.
- **Electronic waste:** Wastes containing circuit boards or cathode ray tubes (CRTs) may be managed in Minnesota under the reduced requirements discussed in MPCA fact sheet #w-hw4-15, Managing Electronic Wastes, available at <https://www.pca.state.mn.us/sites/default/files/w-hw4-15.pdf>.
- **Architectural paint:** Latex and oil-based architectural paint and related coatings generated by Very Small Quantity Generators (VSQGs) may be transported to paint collection sites as discussed in MPCA fact sheet #w-hw4-37a, Architectural Paint, available at <https://www.pca.state.mn.us/sites/default/files/w-hw4-37a.pdf>.
- **PCB-containing ballasts and small capacitors:** Lighting ballasts and small capacitors that may contain polychlorinated biphenyls (PCBs) must be managed under the requirements discussed in MPCA fact sheet #w-hw4-48f, Managing PCBs in Ballasts and Small Capacitors, available at <https://www.pca.state.mn.us/sites/default/files/w-hw4-48f.pdf>.

Managing universal wastes

A business or government agency that generates, transports, or stores universal waste is a *universal waste handler*. Sites that recycle, treat, or dispose of universal waste are *destination facilities*. Destination facilities must comply with the standard hazardous waste requirements for recycling, treatment, or disposal facilities.

Universal waste handlers are classified as *Small Quantity Handlers* or *Large Quantity Handlers*, depending on the amount of universal waste accumulated at any one time. Table 1 shows the universal waste handler categories and requirements for each.

Table 1: Universal waste handler categories and requirements

Small Quantity Handlers (SQH)	Large Quantity Handlers (LQH)
Accumulate less than 5000 kilograms (approximately 11,000 pounds) total universal waste at one site at any one time	Accumulate 5000 kg (approximately 11,000 pounds) or more total universal waste at one site at any one time

And are required to

Hazardous Waste Identification number (HWID)	Not required	Obtain a HWID from the MPCA. See MPCA fact sheet #w-hw1-03; Obtain a Hazardous Waste Identification Number, at https://www.pca.state.mn.us/sites/default/files/w-hw1-03.pdf .
Employee training	Provide universal waste handling and emergency procedure information. Training records are not required.	Ensure employees are thoroughly familiar with universal waste handling and emergency procedures. Training records are not required.
Broken or leaking universal waste	Place leaking or broken universal waste that may release hazardous constituents into a compatible closed container. Ensure the container can fully contain the hazardous constituents (i.e., is airtight for broken lamps and liquid-tight for broken batteries). Universal waste broken accidentally may still be managed as universal waste in Minnesota. Deliberate universal waste breakage is <i>prohibited treatment</i> . Debris contaminated by leaking universal waste, spill clean-up materials, and recovered or removed constituents, such as free liquid mercury, are <i>newly generated wastes</i> , not universal waste, and must be evaluated or assumed to be hazardous.	
Labeling	Label each universal waste or container with one of these phrases: <ul style="list-style-type: none"> • Universal Waste - [type of universal waste], such as 'Universal Waste Batteries' • Waste [type of universal waste], such as 'Waste Thermometers' • Used [type of universal waste], such as 'Used Lamps' 	
Accumulation time	Accumulate universal waste for no more than one year from the date you generated or received the universal waste at your site. Mark the universal waste with the generated or received date or keep records to verify how long you have accumulated it.	
Off-site shipments	Ship only to a site that has agreed to accept the universal waste. If the universal waste is a hazardous material under the U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR), ensure you meet all HMR shipping requirements. See MPCA fact sheet #w-hw2-53, Requirements for Transporting Waste to a VSQG Collection Program, at https://www.pca.state.mn.us/sites/default/files/w-hw2-53.pdf .	
Shipping records	Keeping shipping records is recommended, but not required.	Keep records of each universal waste shipment received or sent for at least three years from the shipment date. Ensure records include at least the: <ul style="list-style-type: none"> • Shipper and recipient of the shipment • Type and quantity of the universal waste • Date the shipment was sent or received
Prohibitions	Do not dispose, dilute, or treat universal waste except for those activities specifically allowed for each different universal waste discussed below. Do not crush, shred, or burn any universal waste.	
Liability	Remember that universal waste remains hazardous waste; you are ultimately responsible for its proper recycling or disposal to hazardous waste standards.	
Hazardous waste generator size	Do not count universal waste towards your hazardous waste generator size. The MPCA does not require reporting of universal waste. If located in a Metropolitan county, check with your county for reporting requirements.	

Batteries

Universal waste batteries include any hazardous waste electrochemical storage device that consists of an anode, cathode, and electrolyte. Universal waste batteries include, but are not limited to lead acid, nickel cadmium, lithium greater than nine volts (9V), silver-containing, and mercury-containing types.

You may drain electrolyte from your universal waste batteries, however the drained electrolyte is a newly generated waste and not a universal waste. Manage the drained electrolyte as a hazardous waste unless you evaluate it as non-hazardous. For more information on evaluating wastes, see MPCA fact sheet #w-hw1-01, Evaluate Waste, at: <https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf>.

You may also discharge universal waste batteries if you can do so safely using either the method recommended by the battery manufacturer or a complete discharge device (CDD). Do not simply short-circuit batteries to discharge them; it may cause a fire or battery explosion. Lithium batteries discharged to less than one volt may be managed as non-hazardous waste in Minnesota, but may remain subject to HMR transport requirements.

You may accumulate different types of universal waste batteries together as long as you ensure they will not short-circuit or cause a fire during accumulation. When you ship universal waste batteries off site, ensure you comply with applicable HMR requirements to prevent short circuits during transport. You may need to enclose each battery in a non-conducting bag or wrap, insulate terminals, or pack batteries to prevent them from touching each other or conductive materials.

Lamps

Universal waste lamps include any hazardous waste bulb or tube portion of an electrical lighting device. Universal waste lamps include, but are not limited to fluorescent, high intensity discharge (HID), mercury vapor, low and high pressure sodium (LPS and HPS), metal halide, and neon (includes lamps containing other noble gases such as argon, krypton, or xenon).

'Green tip' fluorescent lamps

Certain models of fluorescent lamps are designed to pass the hazardous waste test for mercury, and are commonly labeled as 'low mercury' or by having green-colored metal end caps, known as 'green tips'. These lamps do still contain mercury, and in Minnesota must still be recycled. 'Green tip' fluorescent lamps from businesses may not be disposed as solid waste.

LEDs

Although the bulb portions of most light-emitting diodes (LEDs) are not hazardous and thus not universal waste lamps, the attached circuit boards are regulated electronic wastes in Minnesota. See MPCA fact sheet #w-hw4-15, Managing Electronic Wastes, at <https://www.pca.state.mn.us/sites/default/files/w-hw4-15.pdf>.

On-site crushing or cracking

In Minnesota, you may not crush the hazardous portion of universal waste lamps on your site unless you can demonstrate that no hazardous constituents (such as mercury) will be released to the environment from the entire crushing process, including filter changes. The MPCA is not aware of any commercially available lamp crushing equipment that can currently meet this standard.

The MPCA discourages cracking the shell of a universal waste lamp to attempt to remove the hazardous portion of the lamp. The hazardous portion of many universal waste lamps is contained in an inner sealed arc tube or capsule. Heat and chemical reactions in the arc tube may cause the glass to become brittle. This creates a high risk for damage and mercury release if you attempt to extract the tube from the lamp.

Accumulation

If you accumulate more than 1000 universal waste lamps that you did not generate yourself, you must establish financial assurance with the MPCA. Complete and submit MPCA form #w-hw7-20, Lamp Accumulation Financial Assurance Form, at <https://www.pca.state.mn.us/sites/default/files/w-hw7-20.doc>.

Mercury-containing equipment

Universal waste mercury-containing equipment is any discarded device that contains liquid mercury integral to its function. Universal waste mercury-containing equipment includes but is not limited to thermometers, thermostats, barometers, pressure gauges, switches, relays, and pump seals. Lamps that contain gaseous or powdered mercury are universal waste lamps, not mercury-containing equipment. Batteries that contain powdered or amalgamated mercury are universal waste batteries, not mercury-containing equipment.

You may remove sealed mercury ampoules and open housings holding mercury from universal waste mercury-containing equipment only if you do all of the following:

- Perform the removal over a tray, pan, or other containment device large enough to catch and contain any mercury that could spill from the equipment.
- Provide appropriate mercury spill clean-up materials and equipment.
- Ensure the mercury is contained in the original sealed ampoules or you seal any original open housings airtight immediately after removal.
- Perform air monitoring to ensure you do not exceed Minnesota Occupational Safety and Health (MNOSHA) exposure levels. For questions, contact MNOSHA. See [More information](#) on page 6.
- Do not pour, extract, or remove liquid mercury from any mercury-containing equipment.

Manage spilled mercury, clean-up materials and debris, and any free liquid mercury or mercury in containers such as flasks or vials, as newly generated D009 hazardous waste. These wastes are not universal waste.

Note: Sales and donations of mercury and mercury-containing equipment in Minnesota are strictly regulated. If you plan to donate or sell liquid mercury or mercury-containing equipment instead of disposing of it, see MPCA fact sheet #w-hw4-26, Selling Mercury Items, at <https://www.pca.state.mn.us/sites/default/files/w-hw4-26.pdf>.

Pesticides

Wastes included

Pesticides in Minnesota include fungicides, herbicides, insecticides, nematocides, and rodenticides.

Universal waste pesticides are hazardous waste pesticides that:

- Will be collected at a Minnesota Department of Agriculture (MDA)-authorized waste pesticide program. See [Using an MDA-authorized program](#) on page 5
- Will be collected at a waste pesticide program authorized in an adjoining state
- Have been recalled and will be collected by the manufacturer.

Universal waste pesticides do not include pesticides used for their intended purpose in accordance with their label instructions and MDA standards. Universal waste pesticides also do not include medical sterilant products.

Labeling

In addition to the standard [universal waste labeling](#) on page 2, ensure your universal waste pesticide containers also either:

- Retain their original manufacturer label
- Display complete DOT labeling and marking applicable under the HMR
- Bear an alternate label specified by the authorized waste pesticide collection program that has agreed to accept the universal waste pesticide

Using an MDA-authorized program

To use an MDA-authorized program, you must be a pesticide *end user* as defined by the MDA. End users include farmers and others who use or intend to use pesticides themselves, and do not include dealers, manufacturers, formulator, or packagers.

Contact the MDA if you are unsure if you are an end user or eligible to use an MDA-authorized program. See [More information](#) on page 6.

- If you accumulate less than 300 pounds (about 35 gallons) of waste pesticide on your site at any one time, you may assume those waste pesticides are universal waste unless the MDA rejects them.
- If you accumulate 300 pounds or more of waste pesticide on your site at any one time, must manage them under the full hazardous waste requirements, until you have:
 1. Notified the MDA of the type and volume of your waste pesticides.
 2. The MDA has agreed to accept your waste pesticides. After the MDA has agreed to accept your waste pesticides, you may manage them as universal waste.

Dental amalgam being recycled

Dental amalgam being recycled is mercury-containing amalgam generated by dental care providers from which mercury will be reclaimed. Dental amalgam includes but is not limited to amalgam capsules, extracted teeth, filter-trap waste and amalgam-separator sludge.

Document that your dental amalgam wastes are recycled and not disposed. Dental amalgam wastes that will not be recycled are fully regulated hazardous wastes.

Extracted teeth containing dental amalgam are not infectious wastes in Minnesota; however, your amalgam-recycling vendor may require that you disinfect the teeth before accepting them for recycling.

Pretreated dental wastewater

Pretreated dental wastewater is mercury-containing dental wastewater that has been pretreated using an amalgam separator approved by the MPCA. See the MPCA's Managing dental waste webpage, at <https://www.pca.state.mn.us/quick-links/managing-dental-waste> for information about amalgam separators.

Transport pretreated dental wastewater as a universal waste to a publicly owned treatment works (POTW) or a Very Small Quantity Generator Collection Program that has agreed to accept the waste. Do not discharge pretreated dental wastewater to a septic system or any other subsurface treatment system (SSTS).

For a list of VSQG Collection Programs, see MPCA fact sheet #w-hw2-51, Very Small Quantity Generator Collection Programs, at <https://www.pca.state.mn.us/sites/default/files/w-hw2-51.pdf>.

Aerosols and compressed gas cylinders

Aerosols are pressurized containers used to dispense liquid or gaseous products. Waste aerosols and compressed gas cylinders are containers with hazardous waste liquids, propellants, or gases that will no longer be used for their intended purpose and have not been shown to be empty for hazardous waste purposes.

Universal waste aerosols must be accumulated to prevent accidental activation of the dispensing valves. Leaking universal waste aerosols must be accumulated in compatible, liquid-tight, labeled containers.

You may puncture universal waste aerosols and compressed gas cylinders at your site if you meet certain conditions, including collecting and managing all liquids, safeguarding employee safety and health, and complying with the Minnesota State Fire Code. However, some aerosols and compressed gas cylinders may present unusual safety risks when punctured and be inadvisable for on-site management.

See MPCA fact sheet #w-hw4-00, Waste Aerosols and Compressed Gas Cylinders, at <https://www.pca.state.mn.us/sites/default/files/w-hw4-00.pdf>.

More Information

Guidance and requirements in this fact sheet were compiled from the Code of Federal Regulations, Part 40, Section 273; Minnesota Statutes, Chapters §18B and §115A; Minnesota Rules, Chapters 1509, 7001, and 7045; and incorporate regulatory interpretation decisions made by the MPCA on September 9, 2008; October 27, 2008; December 31, 2008; and April 27, 2011; and June 10, 2015. Visit the U.S. Government Printing Office at <http://www.gpo.gov/fdsys/> to review the Code of Federal Regulations directly. Visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs> to review the Minnesota Statutes and Rules.

Contact your Metropolitan County or the MPCA with your questions. The MPCA's Small Business Environmental Assistance Program can also provide free, confidential regulatory compliance assistance. Notify the Minnesota Duty Officer immediately following any universal waste or hazardous waste incident.

Metro County Hazardous Waste Offices

Anoka	763-422-4260
.....	https://www.anokacounty.us/
Carver	952-361-1800
.....	http://www.co.carver.mn.us/
Dakota	952-891-7557
.....	https://www.co.dakota.mn.us/
Hennepin	612-348-3777
.....	http://www.hennepin.us/
Ramsey	651-266-1199
.....	https://www.ramseycounty.us/
Scott	952-496-8177
.....	http://www.scottcountymn.gov/
Washington	651-430-6655
.....	https://www.co.washington.mn.us/

Minnesota Occupational Safety & Health

Toll free	1-877-470-6742
Metro	651-284-5050
.....	http://www.dli.mn.gov/mnosha.asp

Minnesota Pollution Control Agency

Toll free (all offices)	1-800-657-3864
All offices	651-296-6300
.....	https://www.pca.state.mn.us/

Minnesota Duty Officer

Toll free	1-800-422-0798
Metro	651-649-5451

Small Business Environmental Assistance Program

Toll free	1-800-657-3938
Metro	651-282-6143
.....	https://www.pca.state.mn.us/sbeap/

Minnesota Technical Assistance Program

Toll free	1-800-247-0015
Metro	612-624-1300
.....	http://www.mntap.umn.edu

Minnesota Department of Agriculture

Toll free	1-800-967-2474
Metro	612-201-6000
.....	http://www.mda.state.mn.us/